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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,312	01/26/2004	Matthijs H. Keuper	LUM-03-06-08 US	9427
32566	7590	11/01/2005	EXAMINER	
PATENT LAW GROUP LLP			ALAVI, ALI	
2635 NORTH FIRST STREET			ART UNIT	
SUITE 223			PAPER NUMBER	
SAN JOSE, CA 95134			2875	

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/765,312

Applicant(s)

KEUPER, MATTHIJS H.

Examiner

Ali Alavi

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-29 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 3-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/26/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Grnda et al (US Pat. No 6,948,840).

Regarding claims 1-2, the applicant is advised that claims have been given their broadest reasonable interpretation. In re Pearson, 181 USPQ 641 (CCPA 1974),

Grenda discloses an optical system comprising: at least a first light emitting diode (52, fig. 3) a transparent member (col. 2, line 51) having a first surface (58, fig. 3), a second surface (60), and an exit surface (50), the first light emitting diode disposed on the first surface of the transparent member, wherein a reflective coating (58a, col. 4, lines 34-35), is disposed on a portion of the first surface of the transparent member between the first light emitting diode and the exit surface of the transparent member; and one of a second light emitting diode (52, fig. 3) and a reflective coating (60a) disposed on the second surface of the transparent member, wherein the transparent member is shaped such that light emitted from the at least one light emitting diode is

Art Unit: 2875

directed toward the exit surface of the transparent member (fig. 3), wherein the first light emitting diode has a surface that is coupled to the first surface of the transparent member, the surface of the first light emitting diode having a width, wherein the portion of the first surface of the transparent member between the first light emitting diode and the exit surface of the transparent member extends a distance that is greater than the width of the surface of the first light emitting diode (fig. 3).

Regarding claim 10, Grenda discloses a plurality of LEDS disposed on the first surface (fig. 4, 76, 82).

Regarding claim 11, Grenda discloses that the transparent member is consisted of glass (col. 2, line 52).

#### ***Allowable Subject Matter***

Claims 3-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 3 is objected to because in part recites "...wherein the first and third surfaces of the transparent member form a wedge with an apex opposite the exit surface, and the second and fourth surfaces are substantially parallel."

Claim 4 is objected to because in part recites "... the transparent member comprising: a first optical element coupled to the first light emitting diode, the first optical element having an exit surface; and a second optical element having an entrance surface that is coupled to the exit surface of the first optical element, the second optical element having a surface that is the exit surface of the transparent member."

Claim 5 is objected to because being depended on base claim 4.

Claim 6 is objected to because in part recites "...wherein the first surface of the transparent member and the second surface of the transparent member form a wedge with an apex opposite the exit surface."

Claim 7 is objected to because being depended on claim 6.

Claim 8 is objected to because in part recites "... further comprising an image panel upon which light emitted from the exit surface of the transparent member is incident."

Claim 9 is objected to because being depended on claim 8.

Claims 12-29 are allowed.

The following is an examiner's statement of reasons for allowance:

Claim 12 is allowed because the prior art of record fails to teach or suggest an optical system having every feature of the claimed invention particularly, the first surface and second surface being opposite and non-parallel, one of a second light emitting diode and a reflective coating disposed on the second surface; and a second transparent member having a third surface, a fourth surface, an entry surface and a second exit surface, wherein the third surface and fourth surface are opposite and non-parallel and the entry surface and second exit surface are opposite, the entry surface is coupled to the first exit surface, a reflective coating is disposed on the third surface and the fourth surface; wherein the first transparent member and second transparent member are shaped such that light emitted from the first light emitting diode is directed

Art Unit: 2875

toward the second exit surface. Claims 13-20 are allowed because being depended on base claim 12.

Claim 12 is allowed because the prior art of record fails to teach or suggest an optical system having every feature of the claimed invention particularly, a wedge defined by the first light emitting diode along a first surface, a second inwardly reflective surface and a third inwardly reflective surface that are opposite each other and adjacent to the first surface, and a fourth inwardly reflective surface that is opposite and non-parallel with the first surface; wherein the wedge is shaped such that light emitted from the first light emitting diode is directed toward an exit area defined by a wide end of the wedge. Claims 22-29 are allowed because being depended on base claim 21.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Katahira (2003/0063456) discloses a wedge shape light guide, Hoelen et al (2005/0180167) discloses a compact lighting system and display, Ching-Hauang\*\*\*.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Ali Alavi** whose telephone number is **(571) 272-2365**. The examiner can normally be reached between 7:00 A.M. to 5:30 P.M. Tuesday to Friday. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Sandy O'Shea can be reached at (571) 272-2378 or you may fax your inquiry to the **Central Fax at (571) 273-8300**.

Art Unit: 2875

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**ALI ALAVI**  
**PRIMARY EXAMINER**